

Abstract

This invention concerns a validation protocol for determining whether an untrusted authentication chip is valid, or not. The protocol may be used to determine the physical presence of a valid authentication chip and from that determine whether a consumable containing the chip is valid. In another aspect the invention also concerns a system for validating the chip. A random number is generated and encrypted with an asymmetric encryption function. It is then passed to an untrusted authentication chip where it is decrypted. The decrypted random number is then compared with the original random number, and in the event of a match the untrusted chip is considered to be valid.